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10/609,026	06/27/2003	Xiaoling Wang	Wang - 12	8470

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EXAMINER

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3714

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Please find below and/or attached an Office communication concerning this application or proceeding.



## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-10, 12-13, 18-23, 27, 33-37, 39-40, & 42-43 are rejected under 35**

**U.S.C. 102(b) as being anticipated by Shechter et al (US 2002/0012898).**

**Claims 1, 20, 22, 27, 39, & 42:** Shechter discloses a shooting game apparatus that comprises of a:

a laser assembly device (mock shooting device);

a computer system (game and input computing device) coupled to a display for displaying the virtual target; and

a light sensing device;

wherein the laser assembly upon triggering transmits a beam towards the display and light sensing devices around the display senses the beam and transmits the signals to the computer device. The computing device then uses the received signals to determine the location of the beam relative to the virtual target/first location (Abstract; ¶ 16).

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**Claims 2 & 33:** Shechter discloses that the light sensing devices surround the screen (Abstract, ¶16).

**Claims 3-4, 34-37, & 40:** Shechter discloses that the light sensing devices comprise of a plurality of light detector arrays on each edge of the display device. Each array comprises of photo-detectors for detecting the cross-hair/beam (Figs. 3-4, ¶ 40, 42).

**Claims 5-6, 21:** Shechter discloses that the beam projects a cross-hair (¶ 35).

**Claims 7-10, 23, & 43:** Shechter discloses that upon triggered the mock shooting devices sends a infrared or laser beam signaling to the light sensors that the shooting device is being fired (wireless command). As such, the light sensors transmit signals to the computing device so that the computing device can calculate or determine where the shooting device was aimed/fired relative to the virtual target (Abstract, ¶ 43, 46).

The light sensors are electrically linked/integrated to the computing device via cable or wireless (¶ 85). Shechter also discloses that the beam may be encoded in any many to provide any desired information relative to game play (¶ 80).

**Claims 12-13:** Shechter discloses that the beam can be visible or invisible to the human eye, but either way detectable by the sensors (¶ 43, 80).

**Claim 18:** Shechter discloses that the light-sensing device comprises of plurality of sets of light sensors that detect light within certain characteristics, such as depth (¶ 45, 46).

**Claim 19:** Shechter discloses that the light detector arrays are interlaced/prealigned around the screen (¶ 40-41).

**Claims 1, 14-17, 20, 25-27, 38-39, 42, & 44 are rejected under 35**

**U.S.C. 102(b) as being anticipated by Kashima (JP 2000-189671).**

**Claim 1, 20, 27, & 42:** Kashima discloses a shooting game device that comprises of:

a game computing device (¶ 11-17);

a tv projector for projecting images on a screen (¶ 11); and

a light sensing device or video camera for photo/detecting only the light beams from the mock shooting devices reflecting on the screen (¶ 16 );

wherin 1<sup>st</sup> control section (11) inputs the video signal of the beams from the video camera and calculates/determines the locations of the mock shooting devices' beams relative to the virtual images/targets. Then the 1<sup>st</sup> control section outputs the coordinates of each beam to the 2<sup>nd</sup> control section (12) that calculates the hit distinction and outputs the results along with distinctive beam labels to the screen (¶ 17-19, Fig. 2).

**Claims 14-17, 25-26, 38-39, & 44:** Kashima discloses that the shooting gaming device comprises of two mock shooting devices. Each shooting device outputs a light pattern different from each other. Such light patterns are used to determine target hits within the game and distinguish between each mock device (¶ 20). Kashima further discloses that it is conventionally known in the art to distinguish between two different mock shooting devices by providing mock devices that output light at different wavelength and providing light sensors capable of detecting the different wavelengths (¶ 5).

**Claims 27-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamashita (US 2002/0151337).**

**Claim 27:** Yamashita discloses a gaming device that comprises of:

a game computing device of video game device;

an input computing device (within video game device);

a screen device;

a light sensing device or light detection device;

a real interface device; and

wherein the light detection device detects light from the real interface device and outputs it to a input computing/measuring means on the video game device. The video game device takes the information and measures/determines the position of the real interface device relative to the video screen (§ 53).

**Claims 28-31:** Yamashita discloses that the real interface device can be a hat, gloves, footwear (snowboard), or a sword manipulated by the player's movements (§ 52, 90-91).

**Claims 1, 20, 11, & 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahama et al (US 2003/0032478).**

**Claims 1 & 20:** Takahama discloses a shooting game device that comprises of:

a screen device for displaying a game (Fig. 1);

a light sensing device or color ccd camera (§ 79, Fig. 7);

a first mock shooting device with light transmitters forming a light pattern (§ 82, Figs. 8a-c);

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a game processing unit and a muzzle direction input computing unit (Fig. 14);and wherein the muzzle direction unit calculates/determines the position of the mock device relative to the screen based on the light images received from the light sensing device. As such the direction unit transmits such findings to the game processing unit (¶ 97, Fig. 14, 15, 19).

**Claims 11 & 24:** Takahama discloses that signals from the trigger switch and pump trigger on the mock gun are transmitted via the gun cable to the main body of the control unit.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita (US 2002/0151337).**

Yamashita discloses all the limitation of independent Claim 27, but excludes the real interface device being a game control pad. Yamashita discloses that the interface device can be a plurality of objects such as a hat, gloves, sword, etc. As such it would have been an obvious matter of design choice to one of ordinary skill at the time of the invention to make the real interface device of Yamashita a game control pad.

**Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kashima (JP 2000-189671).**

Kashima discloses all the limitations of independent Claim 39, but excludes the light pattern from the first marking device as a corn light pattern. Kashima discloses that the light patterns of the mock devices differ from each other. As such it would have been an obvious matter of design choice to one of ordinary skill at the time of the invention to modify mock devices to transmit light patterns in the form of a corn light pattern.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Bagley (US 2004/0048666) teaches a gaming apparatus that comprises of light emitting boxing gloves.**

**Kobayashi (US 6,146,278) teaches a gaming apparatus that comprises of light sensors, mock guns, and direct cable communications between the mock guns and game cpu.**

**Shirai et al (US 5,340,115) teaches a gaming apparatus that comprises of infrared mock emitting guns with more than one control button for wireless communication with cpu.**

**Okuda et al (US 2004/0009798) teaches a gaming apparatus that comprises of mock guns that are distinguished by sensors and identity codes within the laser beams.**

**Yokoi (US 3,960,380), Yokoi (US 4,268,036), Baer (US 4,395,045), Zaenglein (US 5,194,006), Igarashi et al (US 5,569,085), Lipps et al (US 5,741,182), Hanna et al (US**



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**6,220,965) and Okuda et al (US 2002/0022518) all teach similarly structured mock shooting gun apparatuses.**

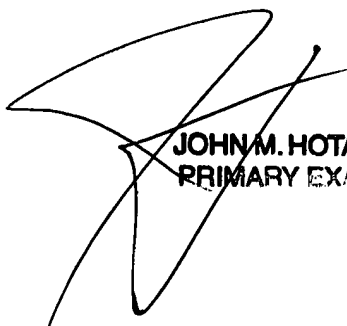
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamar Harper whose telephone number is (571) 272-6177. The examiner can normally be reached on 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**JOHN M. HOTALING, II**  
**PRIMARY EXAMINER**